

CPEC Tracking System Optimization

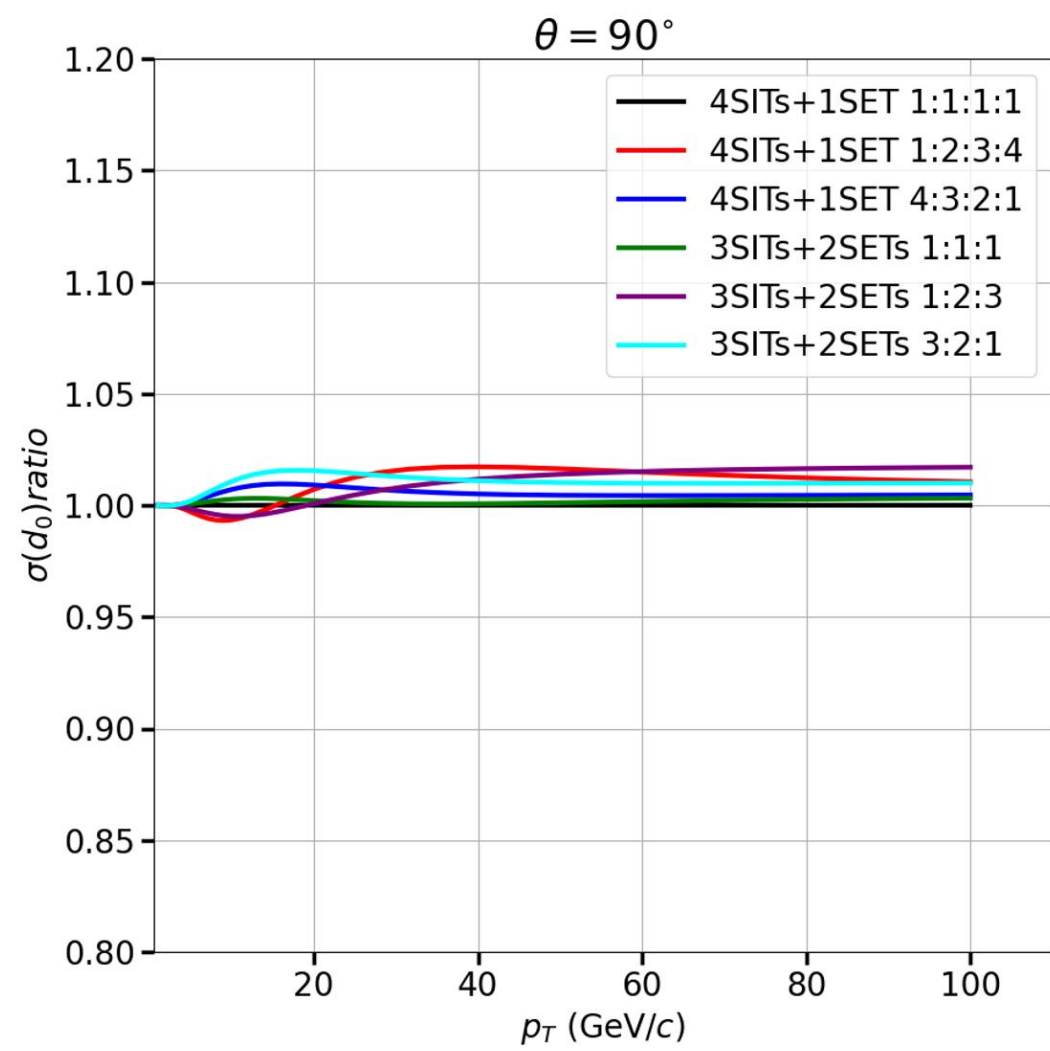
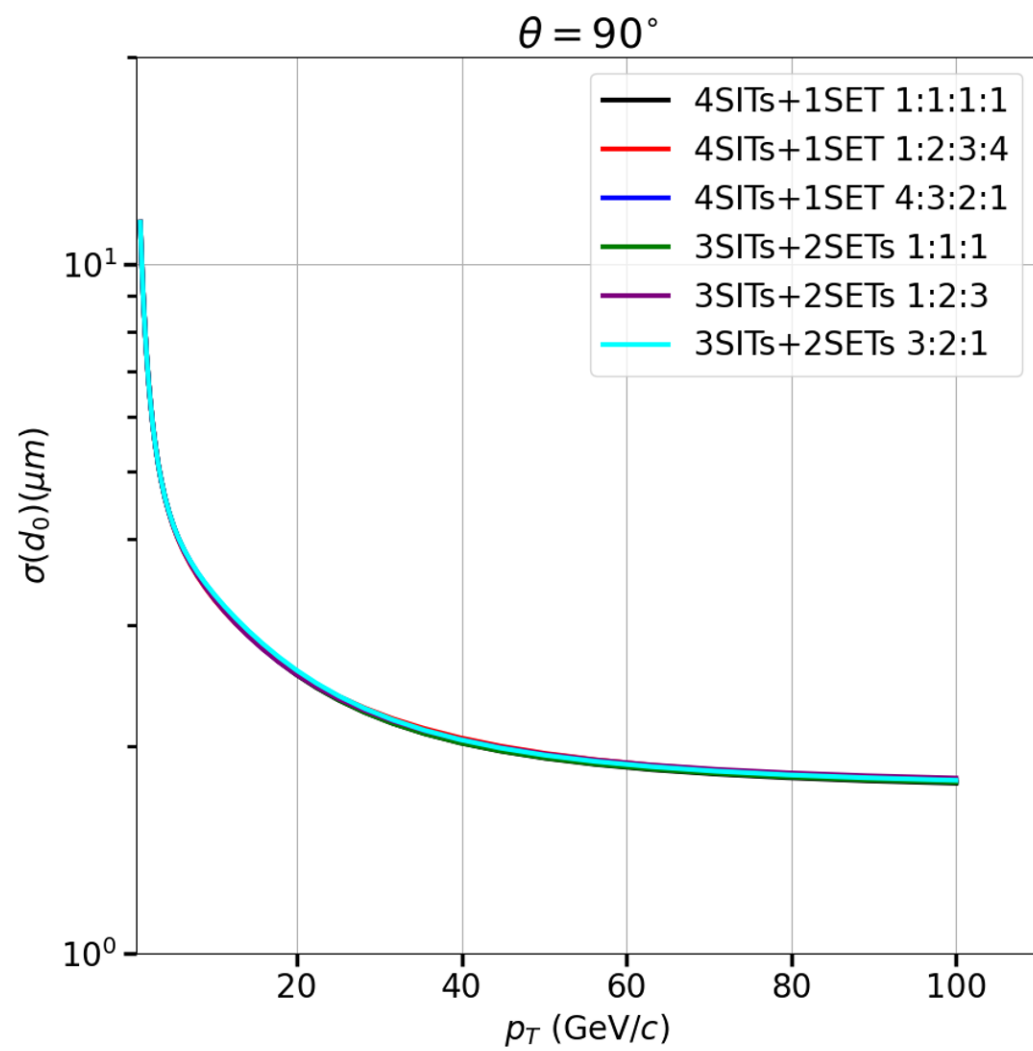
Hao Liang (Jilin Univ.)

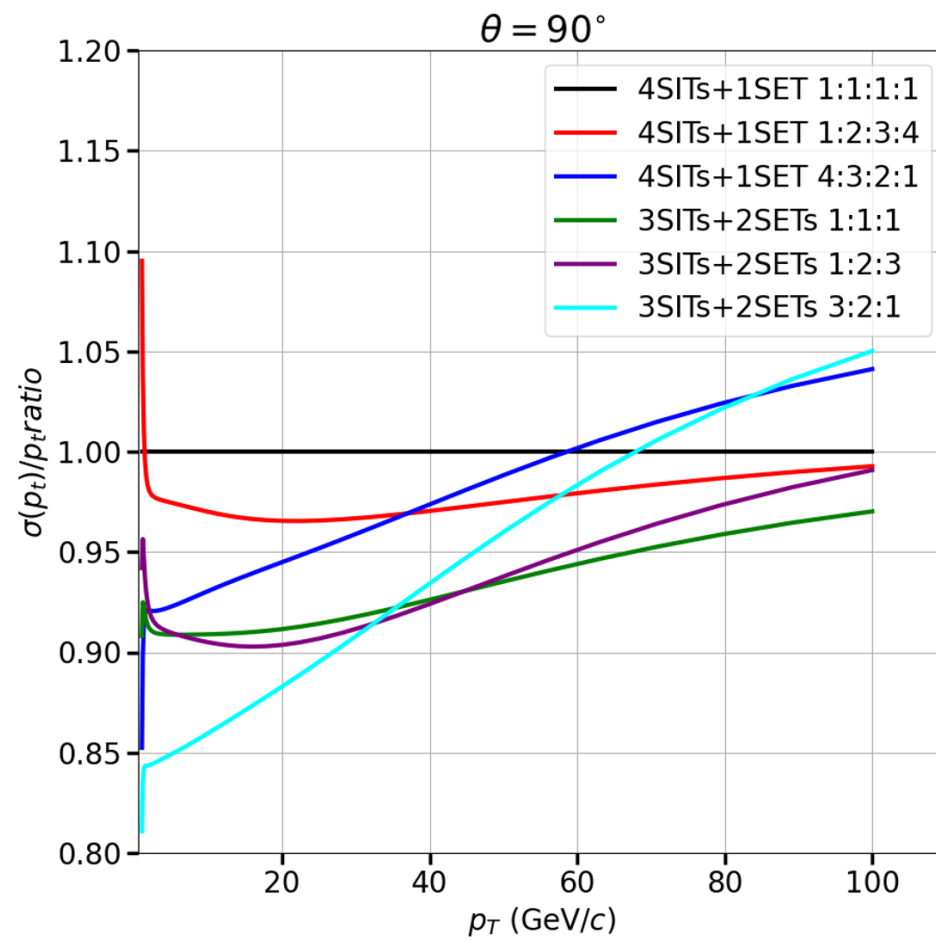
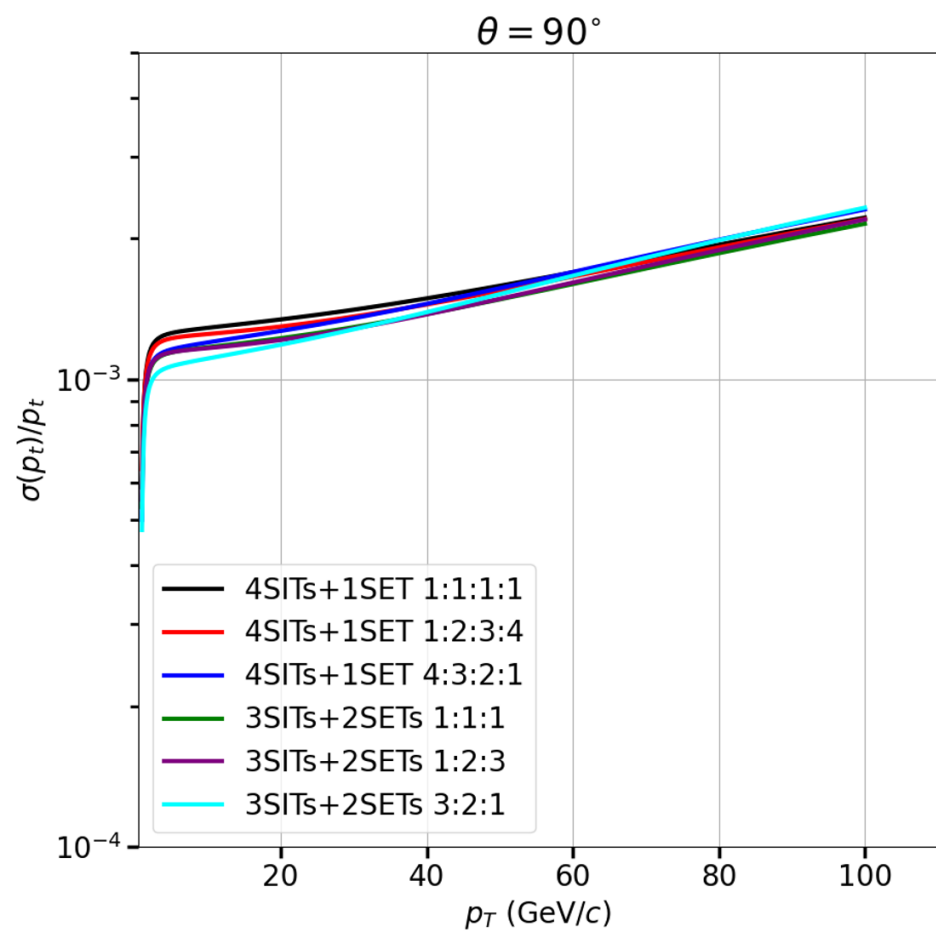
On behalf of the CEPC Tracker Team

2021.12.3

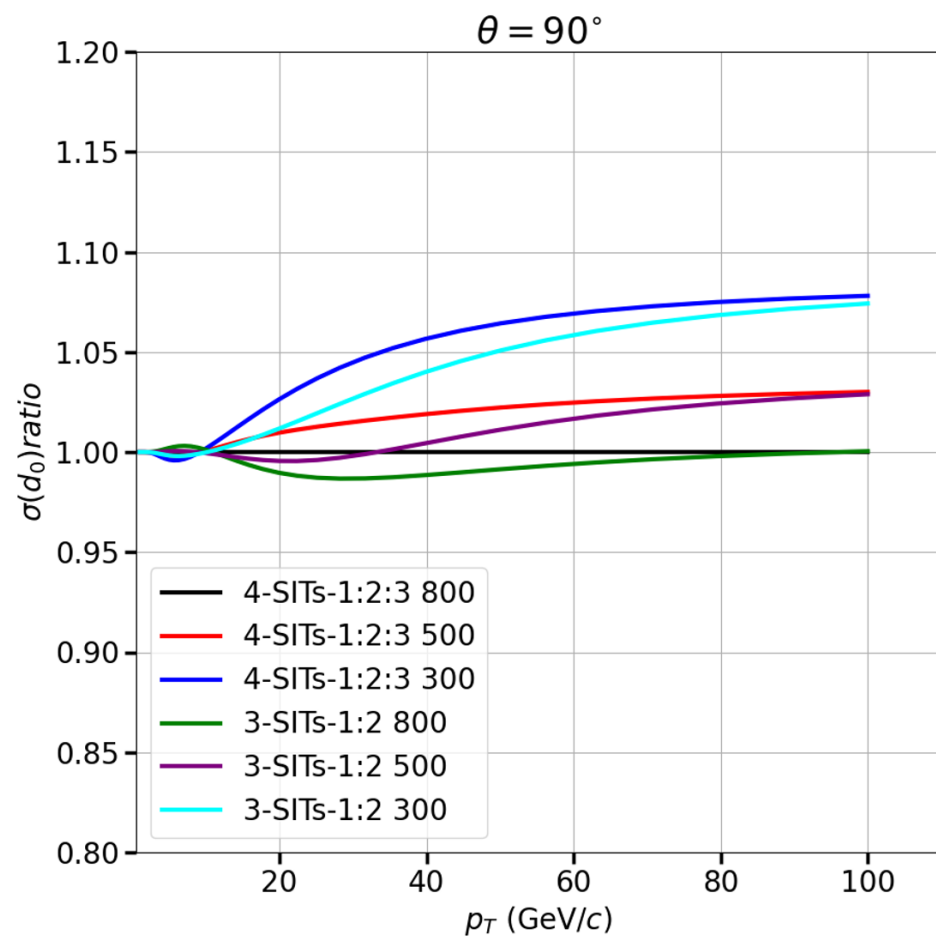
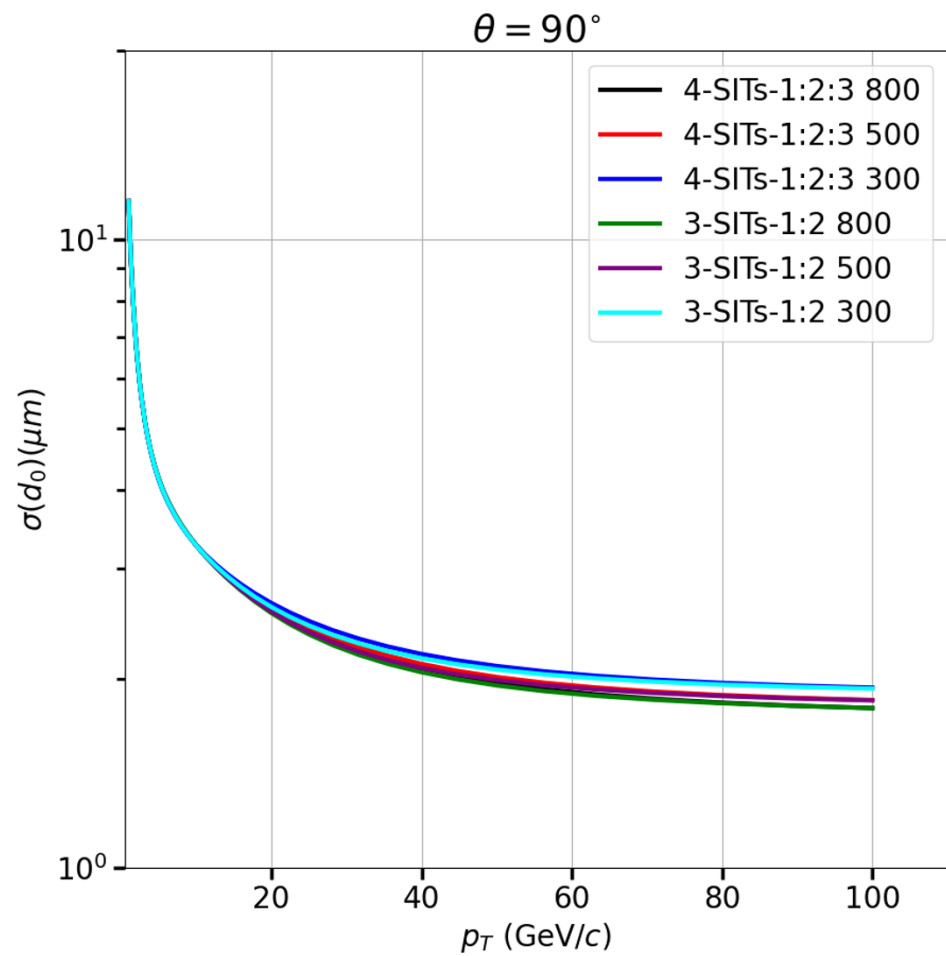
Layers	$\sigma_{R\phi}(\mu\text{m})$	$\sigma_Z(\mu\text{m})$	Thickness($1/X_0$)
Beam Tube	-	-	0.0015
VTX	2.8/6/4/4/4/4	2.8/6/4/4/4/4	0.001
Support for each VTX layer	-	-	0.001
VTX-shell	-	-	0.0015
SIT&SETs	7.2	86.6	0.0065
DC inner shell	-	-	0.00104
DC wires (15*15mm) and gas	100	2828	0.000081+0.0000413
DC outer shell	-	-	0.01346

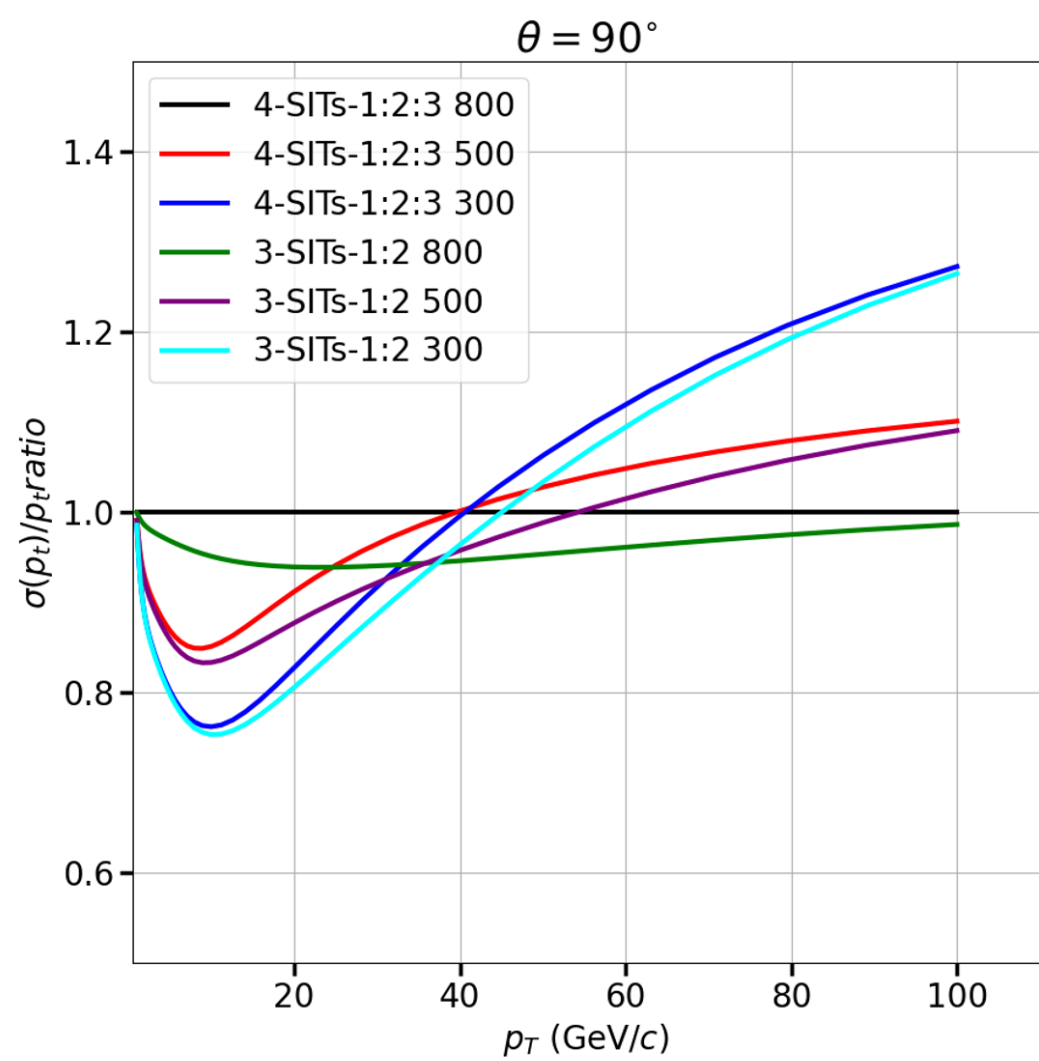
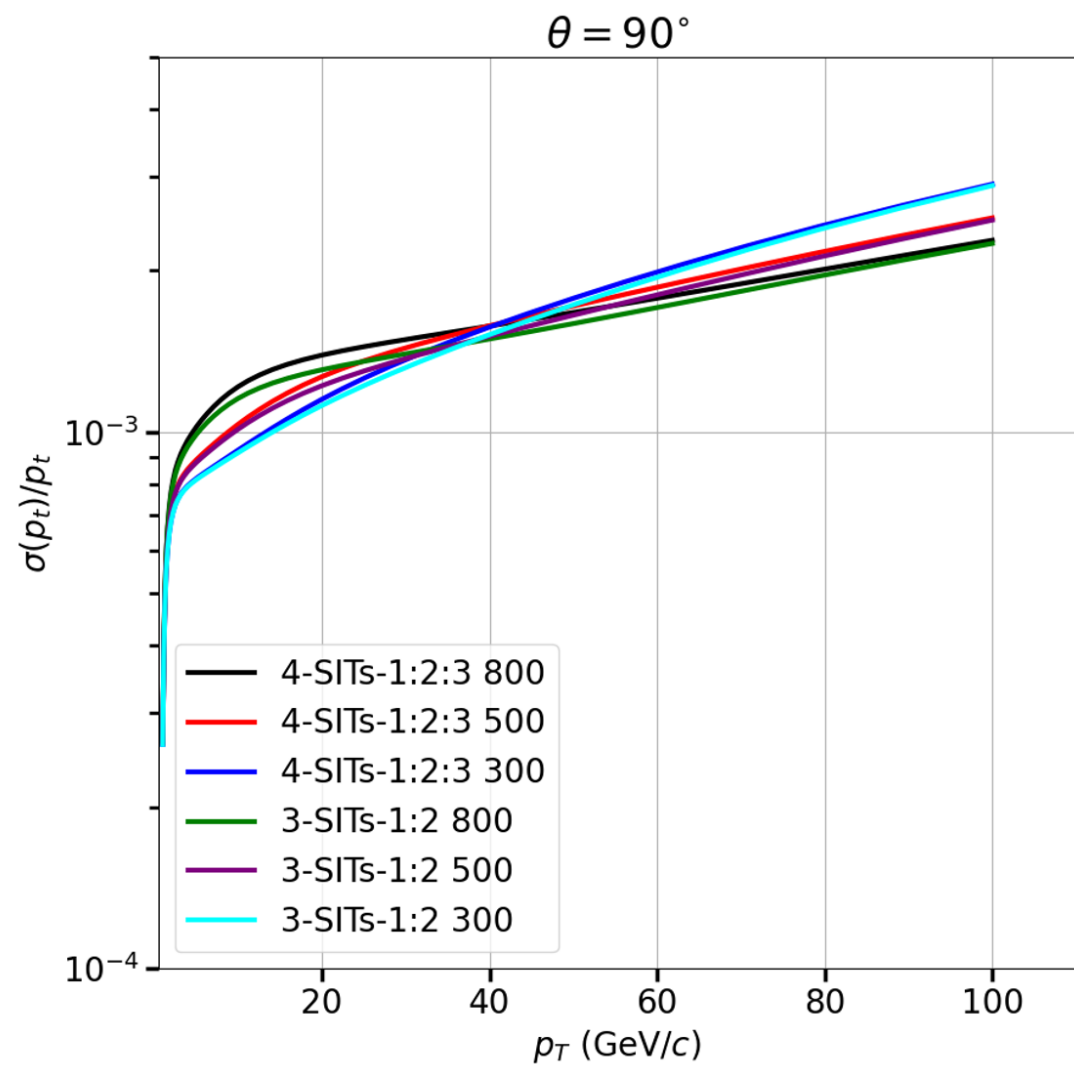
if there is no Drift Chamber



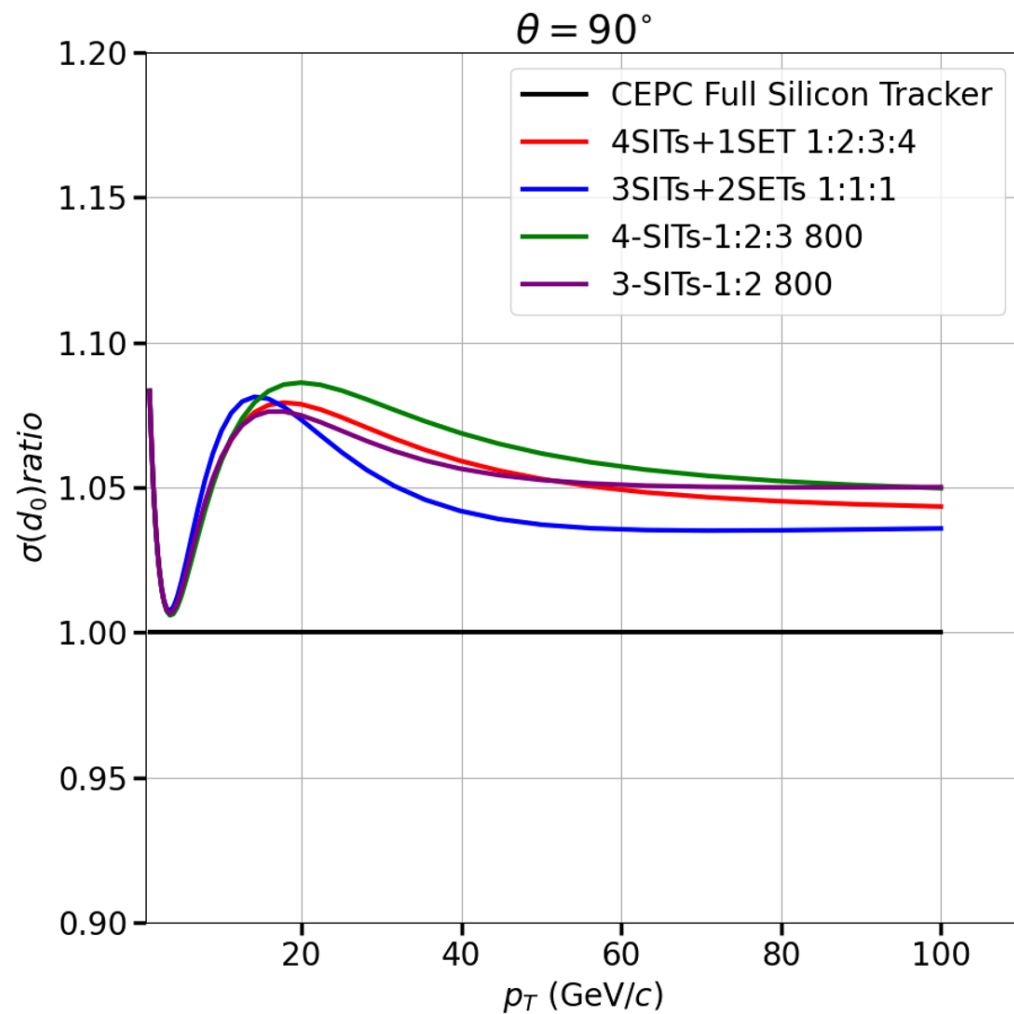
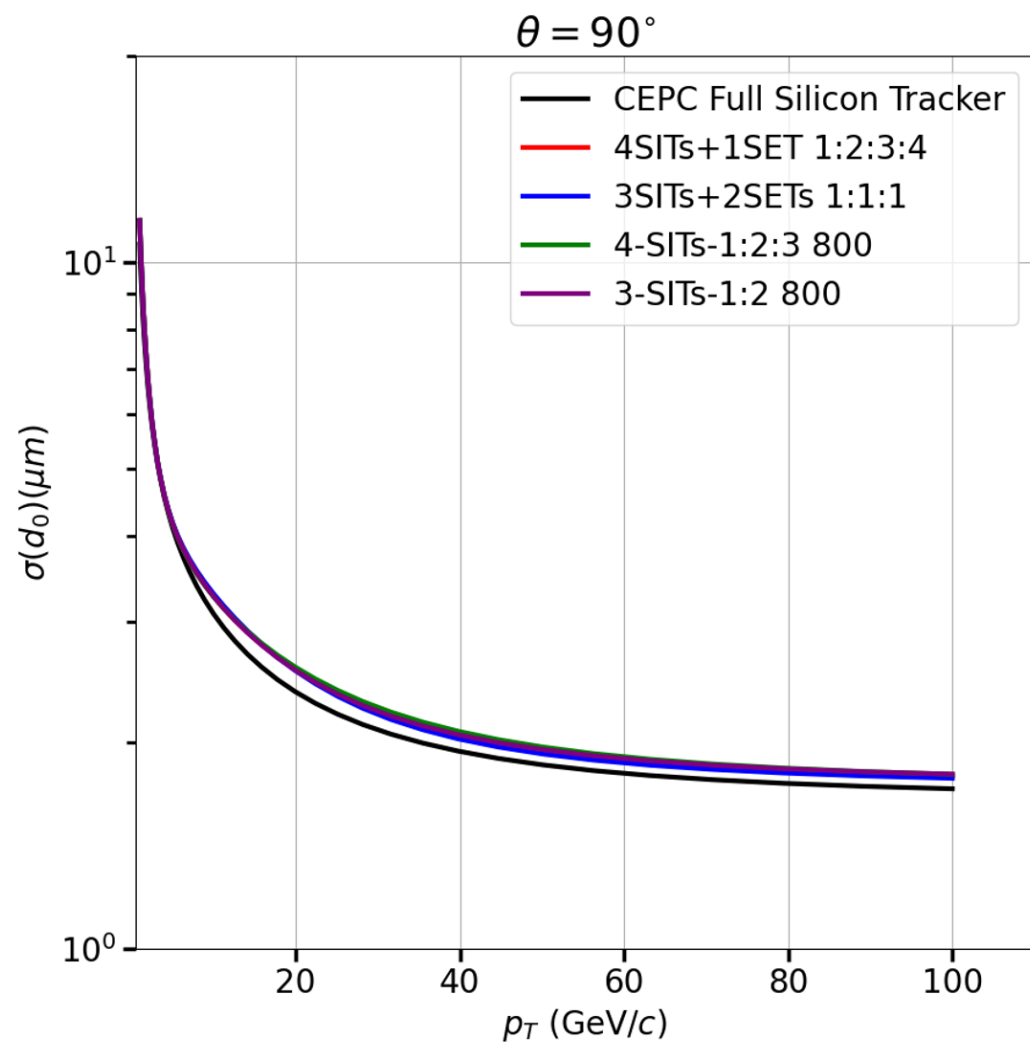


there is drift chamber

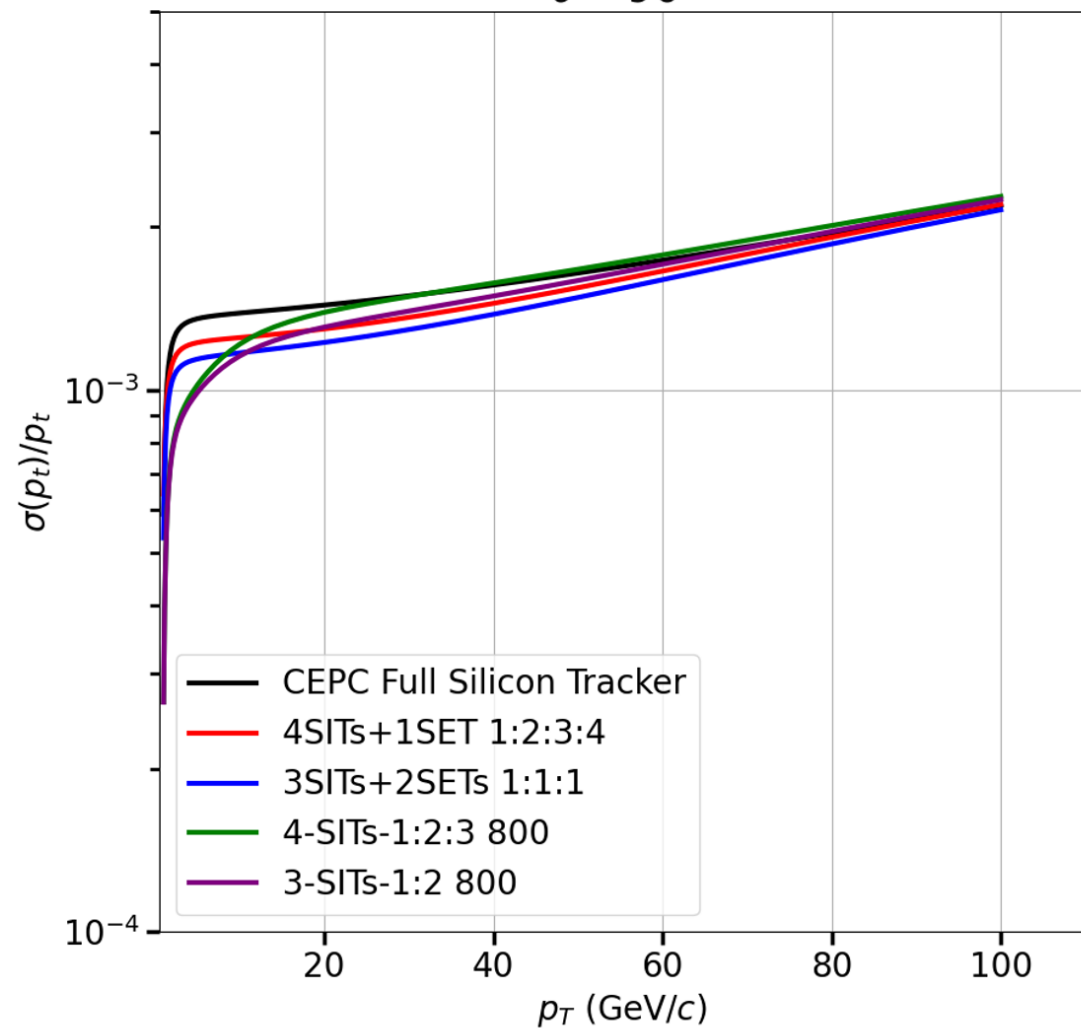




compare with the Full Silicon Tracker from CEPC_CDR_Vol2



$\theta = 90^\circ$



$\theta = 90^\circ$

